

PTO/SB/21 (05-03)

Approved for use through 04/30/2003. OMB 0651-0031

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<b>TRANSMITTAL FORM</b> <i>(to be used for all correspondence after initial filing)</i>	Application Number	09/707,737	
	Filing Date	November 6, 2000	
	First Named Inventor	Stephen R. Quake	
	Art Unit	1655	
	Examiner Name	Arun K. Chakrabarti	
Total Number of Pages in This Submission		Attorney Docket Number	20174C-001810US

ENCLOSURES (Check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s)	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) <i>(please identify below):</i>  Return Postcard, copies of one-hundred and ninety-seven (197) cited references
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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual	Townsend and Townsend and Crew LLP Scott L. Ausenhus Reg. No. 42,271
Signature	
Date	September 9, 2003

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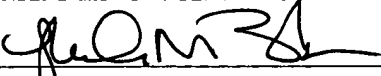
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On SEPT 9, 2003

TOWNSEND and TOWNSEND and CREW LLP

By:   
Nicole M. Burke

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

Stephen Quake

Application No.: 09/707,737

Filed: November 6, 2000

For: METHODS AND APPARATUSES  
FOR ANALYZING  
POLYNUCLEOTIDE SEQUENCES

Examiner: Arun K. Chakrabarti

Art Unit: 1655

SUPPLEMENTAL INFORMATION  
DISCLOSURE STATEMENT UNDER 37  
CFR §1.97 and §1.98

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of the references are enclosed. It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

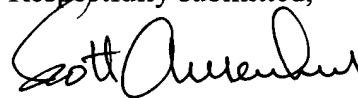
As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no

representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement.

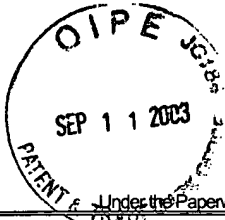
However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,



Scott L. Ausenhus  
Reg. No. 42,271

TOWNSEND and TOWNSEND and CREW LLP  
Two Embarcadero Center, 8<sup>th</sup> Floor  
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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

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Complete if Known

Application Number	09/707,737
Filing Date	November 6, 2000
First Named Inventor	
Art Unit	1655
Examiner Name	Arun K. Chakrabarti
Attorney Docket Number	20174C-001810US

### U.S. PATENT DOCUMENTS

Examiner	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code <sup>2</sup> (if known)			
	A1	US-4,119,368	10/10/1978	Yamakazi	
	A2	US-4,344,064	08/10/1982	Bitler et al.	
	A3	US-4,707,237	11/17/1987	Lepp et al.	
	A4	US-4,793,705	12/27/1988	Shera	
	A5	US-4,971,903	11/20/1990	Hyman	
	A6	US-4,979,824	12/25/1990	Mathies et al.	
	A7	US-4,994,373	02/19/1991	Stavrianopoulos	
	A8	US-5,085,562	02/04/1992	Van Lintel	
	A9	US-5,091,652	02/25/1992	Mathies et al.	
	A10	US-5,096,388	03/17/1992	Weinberg	
	A11	US-5,143,854	09/01/1992	Pirung et al.	
	A12	US-5,171,132	12/15/1992	Miyazaki	
	A13	US-5,224,843	07/06/1993	Van Lintel	
	A14	US-5,242,797	09/07/1993	Hirschfeld	
	A15	US-5,259,737	11/09/1993	Kamisuki et al.	
	A16	US-5,302,509	04/12/1994	Cheeseman	
	A17	US-5,304,487	04/19/1994	Wilding et al.	
	A18	US-5,336,062	08/09/1994	Richter	
	A19	US-5,375,979	12/27/1994	Trah	
	A20	US-5,376,252	12/27/1994	Ekstrom	
	A21	US-5,405,747	04/11/1995	Jett et al.	
	A22	US-5,424,186	06/13/1995	Fodor et al.	
	A23	US-5,529,465	06/25/1996	Zengerle et al.	
	A24	US-5,599,695	02/04/1997	Pease et al.	
	A25	US-5,705,018	01/06/1998	Hartley	
	A26	US-5,776,782	07/07/1998	Tsuji	
	A27	US-5,831,070	11/03/1998	Pease et al.	
	A28	US-5,832,165	11/03/1998	Reichert et al.	
	A29	US-5,836,750	11/17/1998	Cabuz	
	A30	US-5,846,396	12/08/1998	Zanzucchi et al.	
	A31	US-5,861,287	01/19/1999	Metzker et al.	
	A32	US-5,908,755	06/01/1999	Kumar et al.	
	A33	US-5,945,283	08/31/1999	Kwok et al.	
	A34	US-5,959,781	09/28/1999	Kintz et al.	

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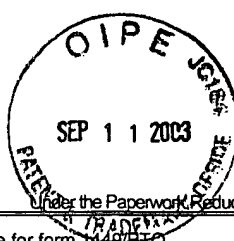
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Art Unit	1655
Examiner Name	Arun K. Chakrabarti
Attorney Docket Number	20174C-001810US

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	A35	US-5,908,755	06/01/1999	Kumar et al.	
	A36	US-5,945,283	08/31/1999	Kwok et al.	
	A37	US-5,959,781	09/28/1999	Kintz et al.	
	A38	US-5,965,446	10/12/1999	Ishikawa, Mitsuru	
	A39	US-6,007,309	12/28/1999	Hartley	
	A40	US-6,020,457	02/01/2000	Klimash et al.	
	A41	US-6,043,080	03/28/2000	Lipshutz et al.	
	A42	US-6,094,274	06/25/2000	Yokoi	
	A43	US-6,107,044	08/22/2000	Nikiforov	
	A44	US-6,132,580	10/17/2000	Mathies et al.	
	A45	US-6,136,212	10/24/2000	Mastrangelo et al.	
	A46	US-6,177,249 B1	01/23/2001	Kwok et al.	
	A47	US-6,210,896 B1	04/03/2001	Chan	
	A48	US-6,221,592 B1	04/24/2001	Schwartz et al.	
	A49	US-6,255,083 B1	07/03/2001	Williams	
	A50	US-6,263,286 B1	07/17/2001	Gilmanshin et al.	
	A51	US-6,344,325 B1	02/05/2002	Quake et al.	
	A52	US-6,355,420 B1	03/12/2002	Chan	
	A53	US-6,361,671 B1	03/26/2002	Mathies et al.	
	A54	US-6,403,311 B1	06/11/2002	Chan	
	A55	US-2003-0022207	01/30/2003	Balasubramanian et al.	
	A56	US-2003-0064398	04/03/2003	Barnes	

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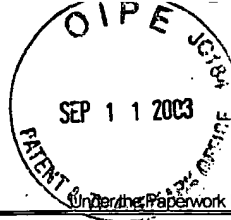
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Art Unit	1655
Examiner Name	Arun K. Chakrabarti
Attorney Docket Number	20174C-001810US

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
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	B3	EPO	EP 0 706 004	A2	04/10/1996			<input type="checkbox"/>
	B4	EPO	EP 0 779 436	A2	06/18/1997			<input type="checkbox"/>
	B5	EPO	EP 0 845 603	A1	06/03/1998			<input type="checkbox"/>
	B6	EPO	EP 0 932 700	B1	08/04/1999			<input type="checkbox"/>
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	B12	PCT	WO 93/21340	A1	10/28/1993			<input type="checkbox"/>
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	B21	PCT	WO 98/45481	A1	10/15/1998			<input type="checkbox"/>
	B22	PCT	WO 99/05315	A2	02/04/1999			<input type="checkbox"/>
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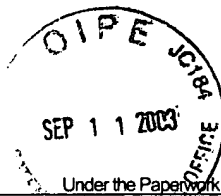
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		Country Code <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
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	B37	PCT	WO 02/00343	A2	01/03/2002			<input type="checkbox"/>
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	B39	PCT	WO 02/30486	A2	04/18/2002			<input type="checkbox"/>
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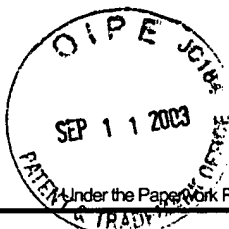
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	C1	ADAM, DAVID "Individual genomes targeted in sequencing revolution", Nature, 2001, p.402, Vol. 411.	
	C2	AMBROSE, W.P. et al. "Single-Molecule Detection With Total Internal Reflection Excitation: Comparing Signal-to-Background and Total Signals in Different Geometries" Cytometry, 1999, p. 224-231, Vol. 36.	
	C3	ARNDT-JOVIN et al. "Immunofluorescence Localization of Z-DNA in Chromosomes: Quantitation by Scanning Microphotometry and Computer-assisted Image Analysis" Journal of Cell Biology, October 1985, pp. 1422-1433, Vol. 101.	
	C4	AXELROD et al. "Total internal reflection fluorescent microscopy", Journal of Microscopy, January 1983, pp. 19-28, Vol. 129, Part 1.	
	C5	AXELROD, DANIEL "Cell-Substrate Contacts Illuminated by Total Internal Reflection Fluorescence" Journal of Cell Biology, April 1981, pp. 141-145, Vol. 89	
	C6	BASCHÉ et al. Chapter 2: "Near-field Optical Imaging and Spectroscopy of Single Molecules" and Chapter 3: "Single-Molecule Detection in Analytical Chemistry", <u>Single Molecule Optical Detection, Imaging, and Spectroscopy</u> , 1997, Published by Weinheim:VCM, Germany.	
	C7	BRASLAVSKY et al. "Objective-type dark-field illumination for scattering from microbeads", Applied Optics, November 2001, p. 5650-5657, Vol. 40, No. 31	
	C8	BRASLAVSKY et al.; "Single Molecule Measurements of DNA Polymerase Activity: A Step Towards Single Molecule Sequencing", Biophysics Journal Abstracts Issue, 2002, p. 507A	
	C9	BRECHTEL et al.; "Control of the electroosmotic flow by metal-salt-containing buffers", J Chromatography A, 1995, pp. 97-105, Vol. 716	
	C10	BRYZEK et al.; "Micromachines on the March", IEEE Spectrum, 1994, pp. 20-31, Vol. 31, No. 5	
	C11	BUCHAILLOT et al.; "Silicon nitride thin films Young's modulus determination by an optical non-destructive method", Jpn. J Appl Phys, 1995, pp. L794-L797, Vol. 36, No. 2:6B	
	C12	BURGHARDT et al. "Total Internal Reflection/Fluorescence Photobleaching Recovery Study of Serum Albumin Adsorption Dynamics" Biophys. Journal, March 1981, pp. 455-468, Vol. 33	
	C13	BURGHARDT et al. "Total Internal Reflection Fluorescence Study of Energy Transfer in Surface-Adsorbed and Dissolved Bovine Serum Albumin" Biochemistry, 1983, pp. 979-985, Vol. 22.	
	C14	CHICUREL, "Faster, better, cheaper genotyping", Nature, August 2001, p. 580-582, Vol. 412, Issue 6847.	

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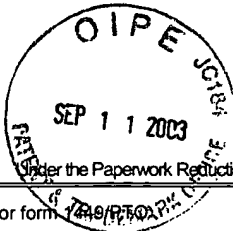
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Application Number	09/707,737
Filing Date	November 6, 2000
First Named Inventor	
Art Unit	1655
Examiner Name	Arun K. Chakrabarti
Attorney Docket Number	20174C-001810US

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	C15	CHIU et al.; "Patterned Deposition of Cells and Proteins onto Surfaces by Using Three-Dimensional Microfluidic Systems", Proc. Natl. Acad. Sci., 2000, pp. 2408-2413, Vol. 97, No. 6	
	C16	CHOU et al.; "A microfabricated device for sizing and sorting DNA molecules", Applied Physical Sciences, Biophysics, Proc. Natl. Acad. Sci., 1999, pp. 11-13, Vol. 96, U.S.A.	
	C17	CLOSE, D. & ANDERSON, R. "Ultraviolet Photobleaching of Free Radicals Created in $\gamma$ -Irradiated Amino Acids" Radiation Research, 1973, pp. 349-357, Vol. 53	
	C18	COOPER, J. & HAGERMAN, P. "Analysis of Fluorescence Energy Transfer in Duplex and Branched DNA Molecules" Biochemistry, 1990, pp. 9261-9268, Vol. 29	
	C19	DECHER et al.; "Buildup of ultrathin multilayer films by a self-assembly process .3. consecutively alternating adsorption of anionic and cationic polyelectrolytes on charged surfaces", Thin Solid Films, April 1992, pp. 831-835, Vol. 210 (1-2).	
	C20	DELAMARCHE et al.; "Patterned delivery of immunoglobulins to surfaces using microfluidic networks", Science, 1997, pp. 779-781, Vol. 276	
	C21	DUFFY et al.; "Patterning Electroluminescence Materials with Feature Sizes as Small as 5 $\mu$ m Using Elastomeric Membranes as Masks for Dry Lift-Off", Advanced Materials, 1999, pp. 546-552, Vol. 11, No. 7	
	C22	DUFFY et al.; "Rapid Prototyping of Microfluidic Switches in Poly(dimethylsiloxane) and Their Actuation by Electro-Osmotic Flow" Journal of Microeng., 1999, pp. 211-217, Vol. 9	
	C23	DUFFY et al.; "Rapid Prototyping of Microfluidic Systems in Poly(dimethylsiloxane)", Analytical Chemistry, 1998, pp. 4974-4984, Vol. 70, No. 23.	
	C24	EFFENHAUSER et al.; "Integrated chip-based capillary electrophoresis", Electrophoresis, 1997, pp. 2203-2213, Vol. 18	
	C25	FAHRENBERG et al.; "A microvalve system fabricated by thermoplastic molding", J Micromech Microeng, 1995, pp.169-171, Vol. 5	
	C26	FU et al.; "A microfabricated fluorescence-activated cell-sorter", Nature Biotechnology, 1999, pp. 1109-1111, Vol. 17	
	C27	FUNATSU et al.; "Imaging of Single Fluorescent Molecules and Individual ATP Turnovers by Single Myosin Molecules in Aqueous Solution", Nature, April 1995, pp. 555-559, Vol. 374, Issue 6522.	

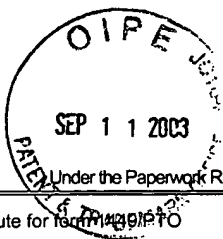
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	C28	GOLL et al., "Microvalves with bistable buckled polymer diaphragms," J. Micromech. Microeng., 1996, pp.77-79, Vol. 6	
	C29	GRAVESEN et al.; "Microfluids- A Review", Journal Micromech Microeng, 1993, pp. 168-192, Vol. 3	
	C30	HARRISON et al., "Micromachining a Miniaturized Capillary Electrophoresis-Based Chemical Analysis System on a Chip," Science, 1993, pp.895-897, Vol. 261	
	C31	HORNBECK et al., "Bistable Deformable Mirror Device," Spatial Light Modulators and Applications 1988 Technical Digest Series, Volume 8, Postconference Edition, Summaries of papers presented at the Spatial Light Modulators and Applications Topical Meeting, June 15-17, 1988, Optical Society of America, pgs. 107-110.	
	C32	HOSOKAWA et al., "Handling of Picoliter Liquid Samples in a Poly(dimethylsiloxane)-Based Microfluidic Device," Anal. Chem., 1999, 71(20):4781-4785	
	C33	HOUSEAL et al. "Real Time Imaging of Single DNA Molecules with Fluorescent Microscopy", Biophysical Journal, 1989, p. 507-516, Vol. 56	
	C34	HULTMAN et al. "Bidirectional Solid-Phase Sequencing of <i>In Vitro</i> -Amplified Plasmid DNA" BioTechniques, 1991, pp. 84-93, Vol. 10, No. 1.	
	C35	IKUTA et al., "Three dimensional micro integrated fluid systems (MIFS) fabricated by stereo lithography," IEEE Kyushu Institute of Technology, 1994, pp. 1-6.	
	C36	ISHIJIMA, A. et al. "Simultaneous Observation of Individual ATPase and Mechanical Events by a Single Myosin Molecule During Interaction with Actin", Cell, January 1998, p. 161-171, Vol. 92.	
	C37	ISHIKAWA, M. et al.; "Single-molecule detection by laser-induced fluorescence technique with a position-sensitive photon-counting apparatus", Jpn. Journal Appl. Phys, 1994, pp. 1571-1576, Vol. 33, Part 1, No. 3A.	
	C38	JACOBSON et al., "High-speed separations on a microchip," Anal. Chem., 1994, 66(7):1114-1118.	
	C39	JACOBSON et al., "Microfluidic Devices for Electrokinetically Driven Parallel and Serial Mixing," Anal. Chem., 1999, 71(20):4455-4459.	
	C40	JACOBSON, K. et al.; "International Workshop on the Application of Fluorescence Photobleaching Techniques to Problems in Cell Biology", Workshop Summary, Federation Proceedings, 1983, pp. 72-79, Vol. 42	

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	C41	JETT, J. et al. "High-Speed DNA Sequencing: An Approach Based Upon Fluorescence Detection of Single Molecules", Journal of Biomolecular Structure & Dynamics, 1989, pp. 301-309, Vol. 7, No. 2.	
	C42	KANBARA et al. "Optimization of Parameters in a DNA Sequenator Using Fluorescence Detection", Bio/Technology, 1988, p. 816-821, Vol. 6	
	C43	KENIS et al. "Microfabrication Inside Capillaries Using Multiphase Laminar Flow Patterning," Science, 1999, 285:83-85.	
	C44	KHRAPKO et al. "A method for DNA sequencing by hybridization with oligonucleotide matrix" DNA Sequence-J. DNA Sequencing and Mapping, 1991, p. 375-388, Vol. 1, Harwood Academic Publishers GmbH, Printed in the United Kingdom.	
	C45	KOPP et al. "Chemical Amplification: Continuous-Flow PCR on a Chip", Science, 1998, 280:1046-1048.	
	C46	KUHN et al. "Silicon Charge Electrode Array for Ink Jet Printing", IEEE Transactions on Electron Devices, 1978, pp. 1257-1260, Vol. ED-25, No. 10.	
	C47	LAZOWSKI et al. "Highly Sensitive Detection of Hybridization of Oligonucleotides to Specific Sequence of Nucleic Acids by Application of Fluorescence Resonance Energy Transfer", Antisense Nucleic Acid Drug Development, 2000, pp. 97-103, Vol. 10.	
	C48	LEE et al. "Laser-Induced Fluorescence Detection of a Single Molecule in a Capillary", Analytical Chemistry, 1994, pp. 4142-4149, Vol. 66.	
	C49	LIN et al. "Free-Space Micromachined Optical Switches for Optical Networking," IEEE J. Selected Topics in Quantum Electronics, 1999, pp. 4-9, Vol. 5, No. 1.	
	C50	LÖTTERS et al. "The mechanical properties of the rubber elastic polymer polydimethylsiloxane for sensor applications," J. Micromech. Microeng., 1997, 7:145-147.	
	C51	LUCY et al., "Characterization of the Cationic Surfactant Induced Reversal of Electroosmotic Flow in Capillary Electrophoresis," Anal. Chem., 1996, 68:300-305.	
	C52	MACKLIN et al.; "Imaging and Time-Resolved Spectroscopy of Single Molecules at an Interface", Science, April 12, 1996; pp. 255-258, Vol. 272, No. 5259.	
	C53	MARRIOTT, G. et al. "Time Resolved Imaging Microscopy", Biophys Journal, December 1991, pp. 1374-1387, Vol. 60.	

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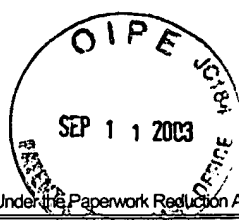
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	C54	MERTZ, J. et al. "Single Molecule Detection by Two-Photon Excited Fluorescence", Optics Letters, 1995, p. 2532-2534, Vol. 20, No. 24.	
	C55	MULLER et al., "Surface-Micromachined Microoptical Elements and Systems," Proceedings of IEEE, 1998, 86(8):1705-1720.	
	C56	NIE et al.; "Probing Individual Molecules with Confocal Fluorescence Microscopy", Science, November 1994, p. 1018-1021, Vol. 266, No. 5187.	
	C57	NYRÉN et al.; "Solid Phase DNA Minisequencing by an Enzymatic Luminometric Inorganic Pyrophosphate Detection Assay", Analytical Biochemistry, 1993, pp. 171-175, Vol. 208.	
	C58	OHARA et al. "Wired Enzyme Electrodes for Amperometric Determination of Glucose or Lactate in the Presence of Interfering Substances" Analytical Chemistry, 1994, pp. 2451-2457, Vol. 66	
	C59	OHARA, T. et al. "Glucose Electrodes Based on Cross-Linked [Os(bpy) <sub>2</sub> Cl] <sup>+2+</sup> Complexed Poly(1-vinylimidazole) Films" Analytical Chemistry, 1993, pp. 3512-3517, Vol. 65.	
	C60	OKABE et al. "Do Photobleached Fluorescent Microtubules Move?: Re-evaluation of Fluorescence Laser Photobleaching both in Vitro and in Growing <i>Xenopus</i> Axon", Journal of Cellular Biology, 1993, pp. 1177-1186, Vol. 120, No. 5, Rockefeller University Press.	
	C61	PETHIG, R. & MARKX, G. "Applications of dielectrophoresis in biotechnology", Tibtech, October 1997, pp. 426-432, Vol. 15.	
	C62	PLAKHOTNIK, T. et al. "Single-molecule spectroscopy", Ann. Rev. Phys. Chem., 1997, pp. 181-212, Vol. 48.	
	C63	QIN et al., "Elastomeric Light Valves***", Adv. Mater., 1997, pp.407-410, Vol. 9, No. 5.	
	C64	QUAKE S.R. and SCHERER A.; "From micro- to nanofabrication with soft materials", Science, November 24, 2000; pp. 1536-1540, Vol. 290, No. 5496.	
	C65	RAPP, R., "LIGA micropump for gases and liquids," Sensors and Actuators A, 1994, pp.57-61, Vol. 40.	
	C66	RONAGHI et al.; "Sequencing Method Based on Real-Time Pyrophosphate", Science, July 1998, p. 363-365, Vol. 281	
	C67	ROYLANCE et al., "A Batch-Fabricated Silicon Accelerometer", IEEE Transactions on Electron Devices, December 1979, pp. 1911-1917, Vol. ED-26, No. 12.	
	C68	SCHASFOORT et al., "Field-Effect Flow Control for Microfabricated Fluidic Networks," Science, 1999, 286:942-945.	

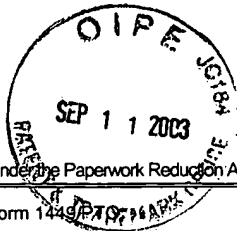
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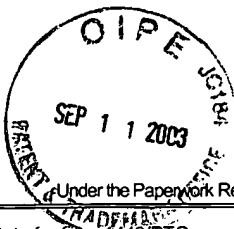
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	C69	SELVIN, PAUL "Fluorescence Resonance Energy Transfer", Methods in Enzymology, 1995, pp. 300-335, Vol. 246.	
	C70	SHOJI et al.; "Smallest Dead Volume Microvalves for Integrated Chemical Analyzing Systems", Proceedings of Transducers '91, 1991, pp. 1052-1055, San Francisco	
	C71	SHOJI, S., "Fluids for Sensor Systems", Topics in Current Chemistry, 1998, pp. 162-188, Vol. 194, Springer Verlag Berlin Heidelberg.	
	C72	SMITH et al. "Fluorescence detection in automated DNA sequence analysis", Nature, June 1986, pp. 674-679, Vol. 321.	
	C73	SMITH et al. "The synthesis of oligonucleotides containing an aliphatic amino group at the 5' terminus: synthesis of fluorescent DNA primers for use in DNA sequence analysis" Nucleic Acids Research, 1985, pp. 2399-2412, Vol. 13, No. 7	
	C74	SMITH et al.; "Direct Mechanical Measurements of the Elasticity of Single DNA Molecules by Using Magnetic Beads", Science, November 1992, p. 1122-1126, Vol. 258, No. 5085.	
	C75	SMITS, J.G., "Piezoelectric Micropump with Three Valves Working Peristaltically", Sensors and Actuators, 1990, pp. 203-206, Vol. A21-A23.	
	C76	THOMPSON, N. & AXELROD, D. "Immunoglobulin Surface-Binding Kinetics Studied by Total Internal Reflection with Fluorescence Correlation Spectroscopy", Biophys Journal, July 1983, pp. 103-114, Vol. 43	
	C77	THOMPSON, N. et al. "Measuring Surface Dynamics of Biomolecules by Total Internal Reflection Fluorescence with Photobleaching Recovery or Correlation Spectroscopy", Biophys Journal, March 1981, pp. 435-454, Vol. 33	
	C78	TOKUNAGA, M. et al. "Single Molecule Imaging of Fluorophores and Enzymatic Reactions Achieved by Objective-Type Total Internal Reflection Fluorescence Microscopy", Biochemical and Biophysical Research Communications, 1997, pp. 47-53, Vol. 235	
	C79	TONEGUZZO, F. et al. "Use of a Chemically Modified T7 DNA Polymerase for Manual and Automated Sequencing of Supercoiled DNA", BioTechniques, 1988, p. 460-469, Vol. 6, No. 5.	
	C80	TUFTE et al., "Silicon Diffused-Element Piezoresistive Diaphragms," J. Appl. Phys., November 1962, pp. 3322-3327, Vol. 33, No. 11.	
	C81	Ullmann's Encyclopedia of Industrial Chemistry, Sections 6 to 6.3, Topic: Carbon Black, Sixth Edition, 1999	

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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

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Application Number	09/707,737
Filing Date	November 6, 2000
First Named Inventor	
Art Unit	1655
Examiner Name	Arun K. Chakrabarti
Attorney Docket Number	20174C-001810US

### NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	C82	UNGER et al.; "Monolithic Microfabricated Valves and Pumps by Multilayer Soft Lithography", Science, April 2000, pp. 113-116, Vol. 288	
	C83	UNGER et al.; "Single-molecule fluorescence observed with mercury lamp illumination", Biotechniques, November 1999, p. 1008-1014, Vol. 27, No. 5.	
	C84	VALE et al.; "Direct observation of single kinesin molecules moving along microtubules", Nature, April 1996, p. 451-453, Vol. 380, Issue 6573.	
	C85	VAN DE POL et al., "Micro Liquid Handling Devices - A Review", Micro Systems Technologies, 1990, pp. 799-805, Vol. 90.	
	C86	VIEIDER et al.; "A Pneumatically Actuated Micro Valve with a Silicon Rubber Membrane for Integration with Fluid Handling Systems", Proceedings of Transducers '95, 1995, pp. 284-286, Stockholm, Sweden.	
	C87	WASHIZU et al., "Molecular Dielectrophoresis of Biopolymers," IEEE Transactions on Industry Applications, 1994, 30(4):835-843.	
	C88	WATKINS, R. et al. "A Total Internal-Reflection Technique for the Examination of Protein Adsorption" J. Biomedical Mater. Res., 1977, pp. 915-938, Vol. 11	
	C89	WEDEKIND, P. et al. "Scanning microphotolysis: a new photobleaching technique based on fast intensity modulation of a scanned laser beam and confocal imaging", Journal of Microscopy, October 1994, pp. 23-33, Vol. 176, Part 1.	
	C90	WEISS, SHIMON "Fluorescence Spectroscopy of Single Biomolecules", Science, March 1999, p. 1676-1683, Vol. 283, No. 5408.	
	C91	XIA et al., "Complex Optical Surfaces Formed by Replica Molding Against Elastomeric Masters," Science, 1996, 273:347-349.	
	C92	XIA et al., "Soft Lithography," Angew. Chem. Int. Ed., 1998, 37:551-575.	
	C93	XU, XIAO-HONG & YEUNG, E. "Direct Measurement of Single-Molecule Diffusion and Photodecomposition in Free Solution", Science, February 1997, pp. 1106-1109, Vol. 275, No. 5303.	
	C94	XU, XIAO-HONG & YEUNG, E. "Long-Range Electrostatic Trapping of Single-Protein Molecules at a Liquid-Solid Interface", Science, September 1998, p. 1650-1653, Vol. 281, No. 5383.	

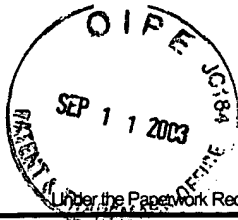
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Page	12	of	12	Attorney Docket Number	20174C-001810US

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	C95	YANG et al. "A Mems Thermopneumatic Silicone Membrane Valve", Proceedings of IEEE 10th Annual International Workshop on MicroElectro Mechanical Systems, Sensors and Actuators, 1998, A64(1):101-108.	
	C96	YAZDI et al. "Micromachined Inertial Sensors," Proceedings of IEEE, 1998, 86(8):1640-1659.	
	C97	YERSHOV et al. "DNA analysis and diagnostics on oligonucleotide microchips", Proc. National Academy of Science, May 1996, p. 4913-4918, Vol. 93, U.S.A.	
	C98	YOUNG et al. "Contoured elastic-membrane microvalves for microfluidic network integration," J. Biomechanical Engineering, 1999, 121:2-6.	
	C99	ZDEBLICK et al. "A Microminiature Electric-to-Fluidic Valve", <i>Transducers '87, The 4th International Conference on Solid-State Sensors and Actuators</i> . Reprinted in <i>Micromechanics and MEMS Classic and Seminal Papers to 1990, 1997, IEEE Press, USA</i> .	
	C100		

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